THUNDER
MOUNTAIN

Cyrus Chess
by Intelligent Chess Software

Commodore
64™/128™
disk

C Y R U S
CHESS

CHESS PROGRAM

for

COMMODORE 64™

U S E R   M A N U A L

INTRODUCTION

Cyrus Chess is a chess program to challenge players of all levels. Its abilities range from almost instantaneous play suitable for a beginner, to tournament-style play for chess experts. It offers a wide range of operating features, enabling you to set up special positions for analysis, take moves back and replay them again, or ask the computer for hints.

The program can also play against itself, allowing you to learn by study and example. Or it can stand aside and let two humans play against each other using the screen display in place of an ordinary chessboard.

If you like, feel free to start up the program and experiment. Guidance is provided by the screen messages and prompts.

We do recommend, however, that you read this manual as far as ("Special Moves") in order to get under way the most quickly. You can then return to the manual for reference whenever you need to.

SETUP

The following equipment is required:

- Commodore 64 computer
- Television, or other suitable display monitor
- Disk drive

Follow the standard procedure for connecting up the computer, as described in the Commodore 64 user manual. After switching on the computer and disk drive, insert the program disk. Then type:

LOAD"CHESS",8 <RETURN>

When the prompt READY reappears, type:

RUN <RETURN>

After about one minute, a chessboard appears on the screen, with the pieces in their starting positions.

MAKING MOVES

Inside the square at the bottom left-hand corner of the board, you will see a smaller square, colored green. This is the <u>marker</u>, which you use for indicating your moves to the computer.

By means of the two "direction" keys (identified by **CRSR** and arrows) or the joystick, you can move the marker around the board and position it wherever you want. When used by themselves, the keys move the cursor down or to the right. To move it up or to the left, hold down a **SHIFT** key and press the appropriate direction key at the same time. A quick key-press moves the marker one square in the direction of the arrow. If you hold the key down, the marker keeps on moving; when it reaches the end of a row or column of squares, it jumps to the opposite end.

If you are playing White, you are now ready to begin the game. A move is made like this:

(a) Place the marker on the piece that you want to move.

(b) Press the **RETURN** key or fire button. The piece changes color.

(c) Press an arrow key or move the joystick; you will now see two images of your piece. One is red, and stays on the same square. The other is green, and goes where you direct it.

(d) Put the green piece on the square you want to move to.

(e) Press **RETURN** or fire again. Provided your move is legal, the red piece changes back to white, and "slides" to its destination square. While Cyrus is computing its reply, no marker is visible.

You can make the computer move first - - if you want to play Black - - by pressing **M**. In this case, before play starts, you will probably want to invert the chessboard by pressing the I key.

The strength and speed of the computer's play can be altered whenever you like; see "Levels of Playing Strength," as well as "Message Display."

Note that in some cases the computer will take several seconds to carry out a command. Wait for it to do so before you try to enter any further commands.

SPECIAL MOVES

A capture is made no differently from any other move - - simply move your own piece in the usual way. The same goes for a pawn capture **en passant**.

In order to castle, you only need to move the king; the rook's move is made for you automatically.

If you enter a move which places a pawn on its promotion square, the computer asks you which piece you want in its place. Press **Q, R, B** or **N**, according to whether you want a queen, rook, bishop or knight. When Cyrus promotes one of its own pawns, it always makes it a queen.

CORRECTING ERRORS

Cyrus will only accept legal moves from you. There will be no response if the move you have tried to complete is illegal - - or if you press **RETURN** or fire with the marker on a square not occupied by a piece that can move.

If a piece has been changed to green, but you then decide not to move it after all, press the **DEL** key. Alternatively, bring the green piece back to its departure square and press **RETURN** or the fire button. The piece changes to white or black again, the marker reappears, and you can reconsider your move.

MESSAGE DISPLAY

The word **CYRUS** or **PLAYER**, displayed in the upper or lower half of the screen, shows whether the program or the user is playing from this end of the board.

A clock reading, in hours, minutes and seconds, is also shown for each side, recording the total thinking time used so far. By seeing which "clock" is going, you can tell which side is to move next.

If you press the "space" bar, the screen changes to a different type of display. In place of the chessboard, you will see a record of the last few moves made and a list of the commands currently at your disposal.

Moves are recorded in "full algebraic" notation. Each file (or vertical column of squares) is given a letter; viewed from the "White" side, the letters range from "a" (on the extreme left) to "h." Each rank (or horizontal row) is given a number, running from 1 (at White's end) to 8. Each square is designated by the letter of its file and the number of its rank. (So at the start of the game, the white king is on e1, the black queen is on d8, etc.). A move by a pawn is recorded simply by naming the pawn's old

and new squares, with a dash separating them. When any other piece moves, its initial letter (or N in the case of a knight) is inserted before the departure square.

Example: - -   1   e2-e4   d7-d5
                 2   e4xd5   Ng8-f6
                 3   Bf1-b5+

White has started by moving his pawn from e2 to e4 (i.e., the pawn in front of his king has gone 2 squares forward). Black has replied with a double advance of the pawn in front of his queen - - from d7 to d5. Then the white pawn has captured the black one (a capture is indicated by "x"), and Black has brought out his knight from g8 to f6. On his third move, White has played his bishop from f1 to b5; the "+" sign shows that this move gives check. White's moves are always printed in the left-hand column.

Castling is indicated by "O-O" (king's side) or "O-O-O" (queen's side). Checkmate is denoted by "++".

Lower down on the message screen, you will see a list of the commands that are currently available, e.g.:

B: Take back

- - reminding you that by pressing the **B** key you can retract a move as described later. The full list of commands should be clear to you once you have read the remaining sections of this manual.

To return from the message screen to the chessboard screen, press the space bar again. Note that the last move made is recorded on the right of the chessboard. The "co-ordinates" (A-H and 1-8) used for the notation can be displayed at the edges of the board by pressing C. To remove them, repeat the same command.

RESULT OF THE GAME

The screen displays "Checkmate" or "Stalemate" if such a situation has come about.

If Cyrus recognizes that the same position (with the same side to move) has arisen three times, it announces: "Draw by repetition."

If, over the space of 50 consecutive moves (played by one side and answered by the opponent), no piece has been captured and no pawn moved, Cyrus announces: "Draw by 50 move rule."

INTERRUPTING THE COMPUTER

If you press the **M** key while Cyrus is computing its move, it will cut short its calculations and play the move assessed as best according to its analysis so far.

Notice that most of the special operating features described below (e.g., selection of the "leve l" retraction of moves, etc.) will not work when it is the program's turn to move. By inducing a move, you enable any of the features to be used.

NEW GAME

You can begin a new game at any time, by pressing the **G** key. The computer then asks you to confirm that this is what you want. To answer "yes," press **Y**. The starting position reappears, and both "clocks" are set back to zero.

Note that until you actually enter a move or start Cyrus computing, the previous game still remains in the computer's memory. You can return to any position in that game by using the **F** key.

If you have pressed **G** by accident, a keypress other than **Y** allows play to be resumed.

LEVELS OF PLAYING STRENGTH

There are nine levels of skill on which Cyrus Chess may be instructed to play. On the higher levels, it naturally needs more time for computing than on the lower ones. However, on any level, the average time per move also varies with the complexity of the position.

When you first set up the program, level 1 is automatically selected. The current level can always be seen on the message display. You may switch to a new level any time when it is your turn to move, by pressing the **L** key and typing the required number, as prompted. Experimentation will tell you which level suits you best.

The program remains on the same level (even after a new game starts), until you change it again; you may do so as often as you like.

Note that Cyrus has knowledge of a large number of standard chess openings, so the first few moves of a game (on any level) are likely to be played fast. In a position where the program has two or more "book" moves available, it chooses between them largely at random.

CHANGING SIDES

If you press the **M** key when it is your turn to move, Cyrus will start computing a move for the side you have been playing, and will expect you to take over the other side.

You can change sides like this as often as you like. When you do so, you will probably want to turn the chessboard around, so that you will still be playing "up the screen." To invert the board, press the **I** key.

PLAYING BOTH SIDES

It's possible for you to play a series of moves for both White and Black. For example, you may want to enter the moves of an opening variation which interests you, to see how Cyrus handles the resulting position. To do this, press **U** ("User v User"). You will then see the word **PLAYER** on both sides of the chessboard screen. You can now enter moves for both sides in turn.

This feature enables two human opponents to play a game against each other with the screen display as their chessboard. When you want the computer to take over play again, press the **M** key.

DEMONSTRATION

If you press the **D** key, both sides will be taken over by the program, as a demonstration game. (Then CYRUS will be displayed for both White and Black).

To halt the demonstration, press **M**. Then, after the next move is made, you may continue the game against the computer.

RETRACTING AND REPLAYING MOVES

If you've played a move but then decide to take it back, this is easily done. Wait for Cyrus to reply, or make it do so at once by pressing **M**. Then press **B**, and the program's move is retracted. A second press on this key retracts your own last move, and you may make another one in its place. A move can be taken back even when the program is displaying checkmate or a draw.

By pressing the **B** key repeatedly, you can take back a whole series of moves by both sides (going right back to the start of the game if you want). If you take back

one more move for White than for Black (or vice versa), you swap sides with the computer.

The **F** key ("forward") has the opposite effect to the **B** key; it replays the move or moves that you have taken back. As an example of what this command is used for, suppose that during a game you want to have another look at a position which arose ten moves earlier. Take back the ten moves with the **B** key; then, after you have finished examining this position, keep pressing the **F** key until you arrive again at the position where you interrupted the game. Play can now be resumed.

You can retract and replay the same sequence of moves as many times as you like. You may also carry on playing from any position within the sequence. This means you can find out what would have happened if you had played differently at a particular stage of the game.

Note, however, that when - - in any position - - you enter a new move or press **M** (or **D**), you are erasing from the computer's memory the moves that had previously been played from this position onwards. Those moves can no longer be replayed with the **F** key.

To review the entire game, you can press **G** and **Y** (so that the starting position reappears), then repeatedly press **F**. This is not, however, possible if the game began from a position which you "set up" (see next page).

HINT

If you want Cyrus to suggest a move for you, press H. One of your pieces makes a move on the board, and then goes back again. It is for you to decide whether to act on this hint; it is not necessarily the best move available (especially on the program's lower levels), though Cyrus will not deliberately mislead you.

Note that the "hint" function is only available when the program has carried out some analysis of the position; it will not work at the start of the game, when Cyrus is playing moves from its "openings book."

If you press **H** when Cyrus is computing the next move, one of the program's pieces is moved back and forth in the same way. This shows you which move is rated as best at the current stage of the analysis.

SETTING UP A POSITION

You will need to set up a special position on the board if, say, you want the program to solve a chess problem; or if you want to continue a previous game that had to be broken off.

In order to rearrange the position, first press the **S** key. The marker on the chessboard changes to a larger size, to show that the computer is ready for a special mode of operation. On the message screen, a new list of commands is displayed - - in "set up" mode, some of the keys have different uses from their normal ones.

As long as the program is in "set up" mode, you have these possibilities:

(a)   You can clear the entire chessboard by holding down a **SHIFT** key and pressing the key marked **CLR**. Usually you will want to do this before anything else - - but not if the position that you intend to set up differs only slightly from the position currently displayed.

(b)   To clear an individual square, position the marker on that square and press **DEL**.

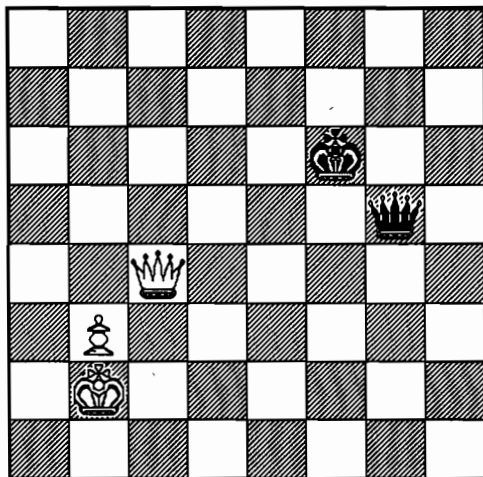(c)   To insert a piece on the board, bring the marker onto the desired square and

press the appropriate key: **K** (king), **Q** (queen), **R** (rook), **B** (bishop), **N** (knight) or **P** (pawn). As long as "White to move" is displayed, any pieces you insert will be white ones. To switch from one color to the other, press **X**.

(d) Both of the clock times can be set back to zero by pressing **Z**.

When all the pieces are in position, if the screen shows the wrong side to move, switch to the other side with the **X** key.

Finally press the **S** key, to take the program out of "set up" mode again. The normal list of commands will now reappear on the message screen, and play may proceed.

Here's an example of how a position is set up. We'll suppose that the position you want is the following, and that White is to move.

Press S.

>The marker changes in size.

Hold down SHIFT and press CLR.

>The board is cleared.

Next, if "Black to move" is shown on the screen, press X (message: "White to move"). You can now place white pieces on the board.

Bring the marker onto the square where you want the white king (b2).

Press K.

>A white king appears.

Bring the marker onto the square for the white pawn (b3).

Press P.

>A white pawn appears.

Bring the marker onto the square for the white queen (c4).

Press Q.

>A white queen appears.

Press X.

>The message "Black to move" is displayed. You can now enter black pieces.

Bring the marker onto the square for the black king (f6).

Press K.

>A black king appears.

Bring the marker onto the square for the black queen (g5).

Press Q.

>A black queen appears.

Press the X key again (message: "White to move").

Finally, press S. The ordinary marker reappears on the board. The message screen displays the standard list of commands again. Play can now begin. Adjust the "level," if you want; then press M to start Cyrus computing (or else, if you are playing White yourself, make a move in the usual way).

In connection with setting up positions, there are a few more points to be noted.

(a) Illegal positions: - - If you've set up a position in which (say) there are no kings, or one side has two queens as well as eight pawns, or Black's king is in check when White is to move - - then Cyrus recognizes this position as illegal. With such a position on the board, it is impossible to take the program out of "set up" mode and continue playing; when you press S, the computer will merely display "Illegal position." Correct the position as necessary.

(b) Castling: - - If a king or rook has been placed on the board in the way we have just described, there can be no castling with that piece. A position in which (say) White has the right to castle king's side may be set up as follows: First press G and Y (the starting position appears), then enter "set up" mode by pressing S. The white king and king's rook should now be left alone, while superfluous pieces are removed individually with the DEL key.

(c) En passant captures: - - After a position has been set up, the next move cannot be a pawn capture en passant. To create a position where such a capture is legal, set up the immediately preceding position and then make the move which permits the capture.

(d) Game record: - - As soon as you make any alterations to the position, the computer's memory of any game you had previously been playing is erased; the moves of that game can no longer be "taken back" or "replayed." If you press S by mistake in the course of a game, take care to re-press S so that the game record in memory is preserved.

This does not, however, mean that the foregoing moves are erased from memory if you press S by accident in the middle of a game. As long as you re-press the same key without actually having made any alterations to the position, play may continue as before. The numbering of the moves remains unchanged, and if you like they can be "taken back" or "replayed" in the normal way.

Chess/Strategy Game — Teens/Adults

Cyrus Chess

Cyrus Chess is a chess program to challenge
players of all ages and skill levels. Cyrus Chess
was designed by the leading experts in computer
chess to provide you with an intelligent,
flexible partner. The program can play at any
level from beginner to tournament-level. Its wide range of features enables you to set
up special positions for analysis, take back and replay moves, watch the computer
play itself, and even ask for a hint if the going gets rough. On-screen help and clear,
attractive graphics make Cyrus Chess accessible to all ages and all skill levels.

Features
- Nine skill levels
- Setup and analysis modes
- On-screen clock
- On-line help

ISBN-0-87085-290-6

0 50047 85290

01615